AMENDMENT TO THE CLAIMS

Applicants selectively amend the claims as follows:

Listing of Claims:

1. (Currently amended) A method comprising:

determining ~~at least one~~ a characteristic of a memory request based on a page management indicator associated with the memory request; and

selectively leaving an accessed memory page open after a memory access based, at least in part, on the ~~at least one~~ characteristic ~~for~~ of the memory request. ~~request, to balance memory access latency and bandwidth of a subsequent memory request(s).~~

2. (Currently amended) A method according to claim 1, ~~wherein the at least one~~ further comprising:

determining another characteristic of the memory request based on a spatial locality for the memory request as compared to at least a subset of pending memory requests, the spatial locality ~~is~~ determined based~~, at least in part,~~ on whether the memory request, as compared ~~or~~ to the at least a subset of pending memory ~~requests~~ requests, ~~are~~ is to a same ~~single~~ memory page as the at least a subset of pending memory requests ~~or to more than one memory page~~.

3. (Currently amended) A method according to claim 2, wherein the ~~single~~ accessed memory page is left open after [[a]] the memory access if the memory request, as compared ~~or~~ to the at least a subset of memory ~~requests~~ requests, is to the ~~single~~ same memory page.

4. (Currently amended) A method according to claim 2, wherein the ~~single~~ accessed memory page is closed after [[a]] the memory access if the memory request, as compared ~~or~~ to the at least a subset of memory ~~requests~~ requests, is to ~~more than one~~ a different memory page.

5. (Currently amended) A method according to claim 1, wherein the ~~determining at least one characteristic of the memory request is determined based, at least in part on a~~ page management

indicator indicates a type of memory request associated with an agent making the memory request ~~expected to be received~~.

6. (Currently amended) A method according to claim 5, wherein the page management indicator to indicate the type of memory request associated with the agent making the memory request comprises the page management indicator to indicate the type of memory request is an instruction memory request.

7. (Currently amended) A method according to claim 6, wherein the ~~instruction memory request results in a page management indicator for leaving the~~ accessed memory page is left open after the memory access.

8. (Currently amended) A method according to claim 5, wherein the page management indicator to indicate the type of memory request associated with the agent making the memory request comprises the page management indicator to indicate the type of memory request is a data memory request.

9. (Currently amended) A method according to claim 8, wherein ~~the data memory request results in a page management indicator for closing~~ the accessed memory page is closed after the memory access.

10. (Currently amended) A method according to claim 1, ~~wherein the at least one~~ further comprising:

determining another characteristic of the memory request ~~is determined,~~ based ~~at least in part,~~ on an arbitration scheme.

11. (Currently amended) A method according to claim 10, wherein the arbitration scheme is based, at least in part, on a priority associated with ~~of a~~ the memory request.

12. (Currently amended) A method according to claim 11, wherein the priority associated with the memory request is based, at least in part, on fairness.

13. (Currently amended) A method according to claim 11, wherein the priority associated with the memory request is based, at least in part, on quality of service.

14. (Original) A method according to claim 1, wherein a memory controller receives the memory request.

15. (Currently amended) An apparatus comprising:

~~a plurality of memory pages; and~~

a memory controller[[,]] coupled with ~~the~~ a plurality of memory pages, the memory controller ~~to analyze at least a subset of received memory requests, to determine whether~~ to selectively leave an accessed memory page open after a memory access based, at least in part, on a characteristic of a memory request, the characteristic determined based on a page management indicator associated with the memory request. ~~whether the memory request(s) are to a single memory page or to more than one memory page.~~

16. (Currently amended) An apparatus according to claim 15, the apparatus further comprising a memory to store content, at least a subset of which is executable content; and

a control logic, coupled with the memory, to selectively execute at least a subset of the executable content, to implement an instance of [[a]] the memory controller.

17. (Original) An apparatus according to claim 15, wherein the plurality of memory pages is associated with physical elements of synchronous dynamic random access memory.

18. (Currently amended) An apparatus according to claim 15, wherein ~~the determination to selectively~~ the page management indicator indicates a type of memory request associated with an agent making the memory request, the type of memory request to include one of an instruction memory request or a data memory request, the memory controller to leave an accessed memory page open after [[a]] the memory access if the page management indicator indicates the type of memory request is an instruction memory request and the memory controller to close an accessed

memory page after the memory access if the page management indicator indicates the type of memory request is a data memory request. ~~is dynamic.~~

19. (Currently amended) An apparatus according to claim 15, wherein [[a]] the memory controller to selectively leave the accessed memory page open after the memory access comprises the memory controller to selectively leave the accessed memory page open after the memory access based, at least in part, on another characteristic of the memory request, the other characteristic to include a spatial locality for the memory request as compared to at least a subset of pending memory requests, the spatial locality determined based on whether the at a least subset of pending memory requests are to a same memory page as the memory request, wherein the memory controller is to leave open the accessed memory page after the memory access if the memory request is to the same memory page ~~receives the at least subset of memory requests~~.

20. (Currently amended) A memory controller comprising:

~~a plurality of memory pages; and~~

a page manager[[,]] coupled with ~~the~~ a plurality of memory pages, the page manager to selectively leave an accessed memory page open after a memory access based~~, at least in part,~~ on ~~at least one~~ a characteristic ~~for~~ of the [[a]] memory request, the characteristic determined based on a page management indicator associated with the memory request.

21. (Currently amended) A memory controller according to claim 20, wherein the page management indicator indicates the type of memory request associated with an agent making the memory request, the type of memory request to include one of an instruction memory request or a data memory request, the page manager to cause the accessed memory page to remain open after the memory access if the page management indicator indicates the type of memory request is an instruction memory request and the page manager to cause the accessed memory page to close after the memory access if the page management indicator indicates a data memory request. ~~the memory controller further comprising a memory to store content, at least a subset of which is executable content; and~~

~~a control logic, coupled with the memory, to selectively execute at least a subset of the executable content, to implement an instance of the page manager.~~

22. (Currently amended) A memory controller according to claim 20, wherein the page manager to selectively leave the accessed memory page open after the memory access comprises the page manager to selectively leave the accessed memory page open after the memory access based, at least in part, on another characteristic of the memory request, the other characteristic to include a spatial locality for the memory request as compared to at least a subset of pending memory requests, the spatial locality determined based on whether the at least subset of pending memory requests are to a same memory page as the memory request, wherein the page manager is to cause the accessed memory page is remain open after the memory access if the memory request is to the same memory page. ~~is associated with elements of synchronous dynamic random access memory.~~

23. (Currently amended) A system comprising:

volatile memory[[,]] associated with a plurality of memory pages; and

a memory controller including a page manager, the page manager coupled with the volatile memory[[,]] to selectively leave an accessed memory page open after a memory access based, at least in part, on ~~at least one~~ a characteristic ~~for a~~ of the memory request, the characteristic based on a page management indicator associated with the memory request.

24. (Currently amended) A system according to claim 23, wherein the ~~at least one characteristic for the memory request is determined based, at least in part, on a~~ page management indicator indicates the type of memory request ~~expected to be received from an~~ associated with the agent making [[a]] the memory request, the type of memory request to include one of an instruction memory request or a data memory request, the page manager to cause the accessed memory page to remain open after the memory access if the page management indicator indicates the type of memory request is an instruction memory request and the page manager to cause the accessed memory page to close after the memory request if the page management indicator indicates a data memory request..

25. (Currently amended) A system according to claim 23, wherein the ~~at least one~~ page manager to selectively leave the accessed memory page open after the memory access comprises, the page manager to selectively leave the accessed memory page open after the memory access based on another characteristic ~~for~~ of the memory request, the other characteristic ~~is determined based, at least in part, on whether~~ to include a spatial locality for the memory request ~~or the~~ as compared to at least a subset of pending memory requests, the spatial locality determined based on whether the at least at a subset of pending memory requests are to a ~~single~~ same memory page as the memory request, ~~or to more than one~~ wherein the page manager is to cause the accessed memory page to remain open after the memory request if the memory request is to the same memory page and the page manager to cause the accessed memory page to close after the memory request if the memory request is to a different memory page.

26. (Currently amended) A system according to claim 23, wherein the ~~at least one~~ page manager to selectively leave the accessed memory page open after the memory access comprises, the page manager to selectively leave the accessed memory page open after the memory access based on another characteristic of the memory request, the other characteristic ~~is determined based, at least in part, on~~ to include an arbitration scheme.

27. (Currently amended) A system according to claim 26, wherein the arbitration scheme is based, at least in part, on a priority associated with the ~~of a~~ memory request.

28. (Currently amended) A system according to claim 27, wherein the priority associated with the memory request is based, at least in part, on fairness.

29. (Currently amended) A system according to claim 27, wherein the priority associated with the memory request is based, at least in part, on quality of service.

30. (Original) A system according to claim 23, wherein the volatile memory is synchronous dynamic random access memory.

31. (Currently Amended) A storage medium comprising content, which, when executed by a machine, causes the machine to:

determine ~~at least one~~ a characteristic of a memory request based on a page management indicator associated with the memory request; and

selectively leave an accessed memory page open after a memory access based, at least in part, on the ~~at least one~~ characteristic ~~for~~ of the memory request. ~~request, to balance memory access latency and bandwidth of a subsequent memory request(s).~~

32. (Currently amended) A storage medium according to claim 31, wherein the ~~at least one characteristic for the memory request is determined based, at least in part, on~~ page management indicator indicates a type of memory request associated with ~~expected to be made by~~ an agent making [[a]] the memory request, the type of memory request to include one of an instruction memory request or a data memory request, the memory page to remain open after the memory access if the page management indicator indicates an instruction memory request and the memory page to close after the memory access if the page management indicator indicates a data memory request.

33. (Currently amended) A storage medium according to claim 31, further comprising the machine to:

determine another ~~wherein the at least one~~ characteristic ~~for~~ of the memory request ~~is determined~~ based~~, at least in part,~~ on a spatial locality for ~~whether~~ the memory request, as compared ~~or~~ to at least ~~the~~ a subset of pending memory requests, the spatial locality determined based on whether the memory request, as compared to the at least a subset of pending memory requests, ~~are~~ is to a same ~~single~~ memory page as the at least a subset of pending memory requests ~~or to more than one memory page~~.

34. (Currently amended) A storage medium according to claim 31, further comprising the machine to:

determine another ~~wherein the at least one~~ characteristic of the memory request ~~is determined,~~ based ~~at least in part,~~ on an arbitration scheme.

35. (Currently amended) A storage medium according to claim 34, wherein the arbitration scheme is based, at least in part, on a priority associated with the ~~of a~~ memory request.

36. (Currently amended) A storage medium according to claim 35, wherein the priority associated with the memory request is based, at least in part, on fairness.

37. (Currently amended) A storage medium according to claim 35, wherein the priority associated with the memory request is based, at least in part, on quality of service.

38. (New) A system comprising:

a plurality of agents;

a memory controller coupled to the agents, the memory controller to use different memory page modes for accessing one or more memory pages based on a characteristic of a memory request received from one or more respective agents, the characteristic determined based on a page management indicator associated with the memory request received from the one or more respective agents.

39. (New) A system according to claim 38, wherein the different memory page modes include a memory page mode to leave the one or more memory pages open after a memory access and a memory page mode to close the one or more memory pages after a memory access.

40. (New) A system according to claim 39, wherein the page management indicator associated with the memory request is attached to the memory request by the one or more respective agents, the page management indicator to indicate to the memory controller which memory page mode to use.